

## CHAPTER 62-04-04 JOINTS AND CONNECTIONS

### Section

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**62-04-04-01. Tightness.** Joints and connections in the water conditioning system shall be watertight for the pressure required by test.

**General Authority:** NDCC 43-18.1-03

**Law Implemented:** NDCC 43-18.1-04

### **62-04-04-02. Types of joints for piping materials.**

1. **Threaded.** Every threaded joint shall conform to the American National Taper Pipe Thread, ANSI B2.1-1960. All burrs shall be removed. Pipe ends shall be reamed or filed out to size of bore, and all chips shall be removed. Pipe joint compound shall be used only on male threads.
2. **Soldered.** Joints in copper tubing shall be made by the appropriate use of approved brass or copper fittings. The surface to be joined by soldering shall be cleaned bright by manual or mechanical means. The joints shall be properly fluxed with an approved noncorrosive paste-type flux and made up with approved solder. For potable water used in copper, brass, or wrought copper fittings must be made with a solder and flux containing not more than two-tenths percent lead. Soldered joints may not be used for tube installed underground.
3. **Flared.** Every flared joint for annealed-temper copper water tube shall be made with fittings meeting approved standards. The tube shall be reamed and then expanded with a proper flaring tool.
4. **Brazed.** Brazed joints shall be made by first cleaning the surfaces to be joined down to the base metal, applying flux approved for such joints and for the filler metal to be used, and making the joint by heating to a temperature sufficient to melt the approved brazing filler metal on contact.
5. **Slip.** Every slip joint shall be made using approved packing or gasket material, or approved ground joint brass compression rings. Ground joint brass connections which allow adjustment of tubing but provide a rigid joint when made up shall not be considered as slip joints.
6. **Expansion.** Every expansion joint shall be of approved type and its material shall conform with the type of piping in which it is installed.

7. **Split couplings.** Couplings made in two or more parts and designed for use with plain end or grooved pipe or approved fittings and with compression gaskets may be used for hot and cold water piping and conductors and leaders. Each manufacturer must have the manufacturer's complete joining assembly approved for the intended use by one of the organizations listed in chapter 62-04-03 or by the administrative authority.

**History:** Amended effective October 1, 1989.

**General Authority:** NDCC 43-18.1-03

**Law Implemented:** NDCC 43-18.1-04

**62-04-04-03. Types of joints between different piping materials.** Every joint from copper tube to threaded pipe shall be made by the use of brass or copper converter fittings. The joint between the copper pipe and the fitting shall be properly soldered, and the connection between the threaded pipe and the fitting shall be made with a standard pipe size screw joint.

**General Authority:** NDCC 43-18.1-03

**Law Implemented:** NDCC 43-18.1-04

**62-04-04-04. Unions.** Unions in the water supply system shall be metal-to-metal with ground seats.

**General Authority:** NDCC 43-18.1-03

**Law Implemented:** NDCC 43-18.1-04